

Remarks

Claims 3, 6-9, 13, 14 and 26 are canceled.

Claims 1, 4, 5, 10 and 11 are amended.

Claims 1, 4, 5, 10, 11, 15 and 18-25 would be pending upon entry of this amendment.

Claim 1 is amended to limit the thermoplastic resin to a polyolefin resin. Support is found for example in the paragraph bridging pages 32 and 33 of the disclosure.

Claim 1 is also amended to limit the organohalogen flame retardant to brominated hydrocarbyl phosphate or phosphonate. Support is found for example in claim 9.

Claim 1 is also amended to limit the sterically hindered alkoxyamine to three generic structures; the matter is imported from claim 3. In the first two structures, the alkoxyamine must be a methoxy, propoxy or cyclohexyloxy amine. In the last structure, the alkoxyamine is a propoxyamine.

The group " E " for the second generic structure is amended to be " E' " to avoid confusion with the first generic structure.

The three remaining compounds of amended claim 4 represent the three generic structures of claim 1, respectively.

Claim 5 is amended to depend on claim 1.

Claims 10 and 11 are amended to be consistent with claim 1.

The claims are again rejected under 35 USC 103(a) as being unpatentable over Haley, et al., U.S. Pat. No. 5,393,812 in view of any secondary reference to Galbo, et al., U.S. Pat. Nos. 5,216,156, 6,271,377, 5,300,544 or 5,844,026; Behrens, et al., U.S. Pat. Nos. 5,124,378 or 5,112,890; Zedda, et al., U.S. Pat. No. 6,117,995; Cortolano, et al., U.S. Pat. No. 5,004,770 or Winter, et al., U.S. Pat. No. 5,204,473.

Applicants thank the Examiner for carefully considering the previously submitted Kaprinidis Declaration. However, the Examiner finds the outstanding results are not commensurate in scope with the claims.

Applicants submit that the Kaprinidis Declaration now fully supports the present claims.

Haley teaches the co-use of hindered alkoxyamine stabilizers and tris(halohydrocarbyl) phosphate or phosphonate ester flame retardants in polyolefin. Haley discloses a range of use of the halogenated hydrocarbyl phosphate ester from 0.5% and 15% (col. 12 lines 13-26). Also disclosed is a range of use of the hindered alkoxyamine from 0.01% to 3%. The closest working Examples of Haley to the present weight ratios of components are Examples 1 and 6, where there is a 1:5 and a 1:10 weight ratio of hindered alkoxyamine to organohalogen flame retardant respectively. Examples 2 and 5 teach a 3:2 weight ratio of hindered alkoxyamine to organohalogen flame retardant.

The one specific hindered alkoxyamine taught by Haley is TINUVIN 123, bis-(1-octyloxy-2,2,6,6-tetramethylpiperidin-4-yl) sebacate.

The present claims are focused on where the hindered alkoxyamine is methoxy, propoxy or cyclohexyloxy substituted hindered amine. The weight ratio of hindered amine to organohalogen flame retardant is from about 1:14 to about 1:50. The total weight of both components in the thermoplastic resin is from about 8% to about 17% by weight based on the resin.

Surprisingly, the claimed limitations provide polymer compositions that meet the stringent V0 rating according to the UL-94 flammability test. The Kaprinidis Declaration shows that formulations of the present invention containing a hindered cycloalkoxy, methoxy or propoxy alkoxyamine moiety together with an organohalogen flame retardant surprisingly perform better than the same formulation containing TINUVIN 123.

These results are surprising and could not be arrived at from the Haley disclosure. As the present claims are aimed at formulations that provide a V0 UL-94 rating, two ratings better than that achievable with a formulation as taught by Haley, Applicants submit that this is an important teaching to the public that cannot be arrived at from Haley, or from Haley in combination with the any secondary references.

Applicants submit that in light of the Kaprinidis Declaration and the above discussion, that the present rejections are addressed and are overcome.

The Examiner is kindly requested to reconsider and to withdraw the present rejections.

Applicants submit that the present claims are in condition for allowance and respectfully request that they be found allowable.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read 'T. Stevenson', with a stylized, cursive script.

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